



The nexus between remittance outflows and growth: A study of Saudi Arabia[☆]



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ABSTRACT

In this study, the autoregressive distributed lag (ARDL) and the error correction model (ECM) techniques were applied to empirically examine the relationship between economic growth and outflows of workers' remittances in Saudi Arabia from 1970 to 2010. The results show that there is a negative but statistically insignificant relationship between outflows of workers' remittances and economic growth in the long term. However, there is a negative and statistically significant relationship between workers' remittances and economic growth in the short term. To decrease workers' remittances, Saudi Arabia must find appropriate new channels to convince foreign workers to consume and invest their money in the country. The roles of government expenditures and exports in the economic growth of Saudi Arabia were also investigated. The amount of government expenditures and the value of exports were found to have positive and significant effects on economic growth in Saudi Arabia.

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1. Introduction

The economy of Saudi Arabia is the largest in the Middle East, with a per capita GDP of US\$15,770 in 2010. Saudi Arabia is an oil-dependent economy in which oil accounts for 40% of Saudi Arabia's gross domestic product (GDP) and more than 90% of its export revenue. The economy of Saudi Arabia changed drastically as a result of the oil embargo of 1973, and persistent financial constraints on the economy were relieved through sharp increases in oil revenues as a result of high oil prices on the international oil market. Substantial government revenues were available to the Saudi government, and it used these revenues to attain persistent growth and development in the country through targeted development plans. These development plans were focused on power generation, telecommunications, trade, social development and infrastructure projects designed to advance the Saudi Arabian economy. Saudi Arabia also focused on the growth of the private sector to diversify its economy. It is largely uncontroversial that efficient and skilled human capital is one of the influential factors in achieving development, in addition to financial resources, but Saudi Arabia lacked the human capital it needed at that time. Therefore, the Saudi Arabian government has relied on an external labor force to achieve its development plans since 1973. Rahman (2007) noted that the country must depend on

an external labor force as a result of enormous government expenditures on infrastructure and a lack of skilled labor.

To meet the domestic labor demand, Saudi Arabia began to import a significant number of unskilled, skilled and highly skilled professional workers from abroad. According to the [General Statistic and Information Department \(2010\)](#), more than 9.5 million workers (more than 31% of the total population) from different parts of the world are playing a role in the development of the Saudi economy. Saudi Arabia is considered among the top destinations in the world for migrant workers. According to the [World Bank, World Development Indicator \(2011a\)](#), in 2009, Saudi Arabia was the second largest source of remittance outflows (\$26.0 billion), after the United States of America. The total outflow of remittances from Saudi Arabia as a percentage of GDP was 4.5% in 2008, 7.0% in 2009 and 6.1% in 2010 ([World Bank, 2011b](#)). Despite the positive contribution of these migrant workers to the economic development of Saudi Arabia, these remittances may still have important consequences for the Saudi economy. High levels of dependency on foreign labor create issues of unemployment for Saudi citizens and vast outflows of money from the national accounts.

On a larger scale, the outflow of workers' remittances is expected to have a negative effect on economic growth in Saudi Arabia because this outflow will lead to low levels of consumption and investment activities by migrant workers in the country. The outflow of remittances can be viewed as a leakage from the circular flow of income that reduces the amount of money that is available for economic activity. Excessive leakage can hamper economic growth. Foreign workers in Saudi Arabia transfer billions of dollars to their home countries; hence, this amount of money is not used for consumption or investment in Saudi Arabia. Therefore, remittance outflows are withdrawals from the circular flow

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of money and thus reduce economic activity and ultimately negatively affect aggregate demand in the Saudi Arabian economy.

The objective of this study was to analyze the link between the economic growth of Saudi Arabia and the outflow of workers' remittances from Saudi Arabia during the period from 1970 to 2010. This paper is organized into five sections. The first section provides an **Introduction**. The second section provides an **Overview of the outflow of workers' remittances**. The third section reviews the literature and describes the development of the subject. The fourth section describes the **Model specification, data and methodology**. The final section concludes the paper with important findings and suggestions.

2. Overview of the outflow of workers' remittances

The outflow of remittances tends to depend largely on the prevailing economic activities in the host country. This outflow is also subject to the prevailing interest rates and exchange rates, the availability of a skilled labor force, and the domestic environment for investment and government policies. Developing countries have received a substantial share of these remittances flows, which have surpassed the official development assistance (ODA) flows and other private sources of capital flows to become second only to the foreign direct investment (FDI) flows to developing countries. In developing countries, inflows of remittances increased from US\$52.6 billion during the 1990s to US\$204.3 billion during the 2000s and reached US\$297.3 billion in 2010 ([World Bank, World Development Indicator, 2011a](#)).

The outflow of workers' remittances from Saudi Arabia increased from US\$55.0 billion during the 1980s to US\$121.4 billion during the 1990s and to US\$192.3 billion during the 2000s. The annual outflow of remittances increased from US\$4.1 billion in 1980 to US\$11.2 billion in 1990, to US\$18.1 billion in 1994, to US\$21.0 billion in 2008 and to US\$26.2 billion in 2010.

Table 1 shows the annual GDP growth rate, the outflow of workers' remittances as a percentage of GDP and government expenditures as a percentage of GDP in Saudi Arabia during the 1970–2010 period. The table depicts a high decadal government expenditure of 16.3% during the 1970s, 28.8% in the 1980s and 27.3% in the 1990s. These high levels of government expenditures resulted from the oil boom in the early and late 1970s that enlarged the size of the government and led to an increase in foreign labor demand. Remittance outflows from the country increased as a result. Thus, an increase in the size of government expenditures caused an increase in economic growth and led to increasing outflows of workers' remittances from the country. The data show a strong positive correlation (59%) between remittance outflow as a percentage of GDP and government expenditures as a percentage of GDP during the period from 1970 to 2010.

The high level of remittance outflows is also partly indicative of low consumption and investment activity associated with foreign workers' earnings. Therefore, it could be expected that this tendency will have a negative influence on the economic growth of the country.

Table 1

Trends in the annual growth rate of the GDP, outflow of remittances and government expenditure as a percentage of GDP in Saudi Arabia during the 1970–2010 periods. Source: [World Bank, World Development Indicators \(2011a\)](#).

| Years | GDP growth rate | Remittance outflows | Government expenditure |
|---------|-----------------|---------------------|------------------------|
| 1970–79 | 14.6 | 2.4 | 16.3 |
| 1980–89 | −0.6 | 5.0 | 28.8 |
| 1990–99 | 3.1 | 10.5 | 27.3 |
| 2000–04 | 3.7 | 7.4 | 25.6 |
| 2005 | 5.6 | 4.5 | 22.2 |
| 2006 | 3.2 | 4.5 | 23.3 |
| 2007 | 2.0 | 4.3 | 22.3 |
| 2008 | 4.2 | 4.5 | 19.3 |
| 2009 | 0.2 | 7.0 | 25.3 |
| 2010 | 3.8 | 6.0 | 22.2 |

Fig. 1 reflects the movements in the outflow of workers' remittances during the 1970–2010 period. Outflows of workers' remittances from Saudi Arabia increased during 1973–74 and 1978–79, periods in which the country was endowed with oil boom revenue. The declining oil revenues in 1985 and the government's intention to impose a tax on foreign workers at the time of the eruption of the Gulf crisis in 1990 also led to an increase in the outflow of workers' remittances. The outflow of workers' remittances tended to vary during the 1994–2004 period and then began to exhibit a strong upward trend after 2004.

Fig. 2 presents the annual GDP growth rate and the outflow of workers' remittances in Saudi Arabia during the above-mentioned period. **Fig. 2** shows that the outflow of workers' remittances increased more rapidly during the oil boom period in the early and late 1970s and in the early 1980s, when the GDP growth rate was increasing favorably. The growth rate of outflows of remittances increased slowly and became negative in 1987 when the GDP growth rate also became negative. The outflow of workers' remittances increased in 1988 and showed negative growth in 1993. Since 1996, the outflow of workers' remittances has fluctuated over the years because of low oil prices. In the mid-2000s, the growth rate of outflows of remittances increased as the GDP growth rate increased because of high oil prices.

3. Literature review

Workers' remittances refer to the money that is remitted from the host country by migrant workers to their dependents in their native countries for diversified needs. 'Remittances' can be differentiated from 'migrant transfers' in that remittances consist of current private transfers by non-residents to their home country by workers residing in the host country for more than a year. 'Migrant transfers' tend to refer to the net worth of transfers by workers who are expected to live in the host country for more than a year. The transfers made by migrants who live in a country for less than a year are categorized as the 'compensation of employees' ([World Bank, 2010](#)).

Over time, workers' remittances to developing countries have increased in value and have become an area of great interest for academicians, policy makers and financial institutions worldwide. Most studies of workers' remittances have addressed the effects of the inflows of workers' remittances, but a few studies have been conducted to examine the economic concerns associated with the outflow of workers' remittances from a country. Research has identified a number of factors that tend to deter the flow of workers' remittances into and out of a country. These factors include the GDP growth rate, the interest rate, the inflation rate, exchange rates and social factors, including the incomes of workers. Workers' remittances also depend on the domestic investment climate and prospective yields. As noted by [Heckscher and Ohlin \(1991\)](#), the migration of workers as an agent of production depends to a great extent on the differential labor costs between the countries concerned. The number of migrant workers also depends on the availability of a skilled labor force in the host country, the relative costs on the demand side, the wage rate differential, technical feasibility and conditions concerning the movements of workers from the supply side ([Jadhav and Singh, 2006](#)).

[Vargas-Silva and Huang \(2006\)](#) observed that workers' remittances respond more to changes in the macroeconomic conditions of the host country than to changes in the home country. The outflow of workers' remittances from a country also depends on the plans of migrants regarding their settlements in the host country. If workers want to stay temporarily, then they are likely to remit more money than if they plan to stay for a long period. The decision regarding the amount of money to remit also depends on the quality of workers, their workmanship and financial sector feasibility.

[Rajan \(2005\)](#) found that FDI, workers' remittances and export revenue are more stable than short-term debt and equity flows. [Rajan and Nair \(2006\)](#) observed that there is a small positive correlation between remittances and private capital flows, especially in the case

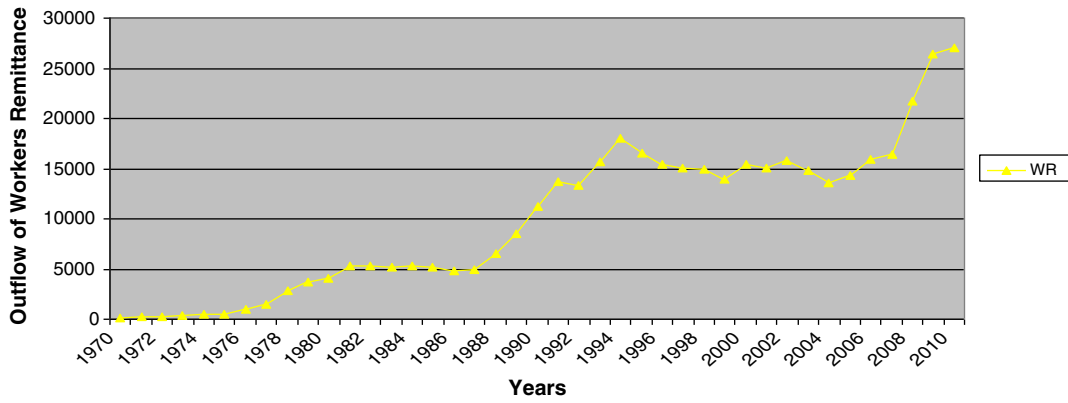


Fig. 1. Trends in the outflow of Workers Remittance in Saudi Arabia during 1970–2010. Source: World Bank, World Development Indicators(2011a)

of ODA to developing countries. Reichart (1981) examined the negative effects of migration on the home country using the term ‘migrant syndrome’ and considered remittances to be a form of compensation against the loss of human capital. Migrant syndrome is likely to produce a ‘Dutch disease’ effect by increasing the competition for labor, and it is also likely to affect the production of goods and services in the economy. The growing importance of the mobility of laborers has been recognized as Mode-4 means to supply services under the aegis of the World Trade Organization (WTO) (Ketkar and Ratha, 2001). Chami et al. (2005) observed that remittances are likely to offer less incentive to the remitter to enter the labor force at the micro level, whereas at the macro level, it is likely to have a Dutch disease effect.

Swamy (1981) found that differences in the rates of interest between the home country and the host country are significant in remittance flows, whereas differences in the exchange rates are insignificant. Nayyar (1994) observed that remittance flows have grown at a faster rate because of decreasing interest rates in the international markets. El-Sakka (1998) found that the difference between the interest rate and the exchange rate has played an important role as a determinant of remittance flows.

Buch and Mand Kukulenz (2004) observed that FDI and private capital tend to increase during a boom period, but the same is not true of foreign capital in terms of workers' remittances. Mihir et al. (2009) observed that workers' remittances are more influenced by pro-cyclical activities than the level of private capital, which increases during boom periods and is sluggish during deflationary phases. Rahman (2007) found that remittance outflows are positively correlated with the GDP growth rate and wage rate in Saudi Arabia. He

observed that socio-economic and political conditions have a significant effect on workers' remittances and that workers' remittances are pro-cyclical in nature, as they tend to increase during booms and decrease during recessionary phases. This study is an attempt to empirically analyze the relationship between economic growth and the outflow of workers' remittances as well as the magnitudes of government expenditures, exports and inflation by applying the bounds testing approach to co-integration in Saudi Arabia for the 1970–2010 periods.

4. Model specification, data and methodology

The purpose of the study is to empirically analyze the relationship between economic growth and the outflow of workers' remittances in Saudi Arabia during the 1970–2010 periods. This study is based on the assumption that economic growth causes an outflow of capital in the form of workers' remittances because of the majority presence of foreign laborers in Saudi Arabia, which is likely to have long-term implications for the country as a result of Saudi Arabia's policy-based structural rigidities. Based on previous studies, we can express the basic form of the relationship between remittances and GDP as follows:

$$Y_t = \beta_0 + \beta_1 WR_t + \beta_2 GE_t + \beta_3 EXP_t + \beta_4 INF_t + u_t \dots \dots \dots \quad (i)$$

where (Y_t) denotes the real GDP, (WR) denotes the outflow of workers' remittances, (GE) denotes government expenditure, (EXP) denotes exports and (INF) denotes inflation in Saudi Arabia. All of the variables except the inflation rate are expressed in logarithmic form. The term u_t is the disturbance term in the model.

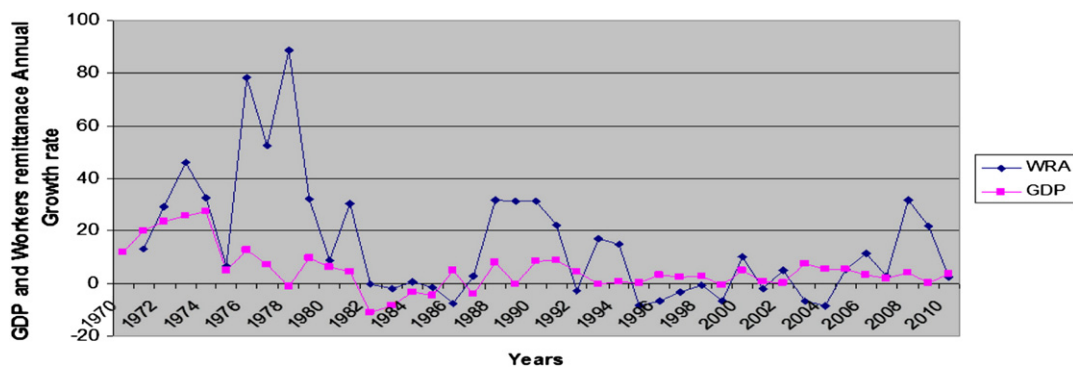


Fig. 2. Trends in the GDP growth rate and annual outflow of workers remittance during 1970–2010. Source: World Bank, World Development Indicators (2011a)

Table 2
Summary statistics.

| Statistics | Y | WR | GE | EXP | INF |
|-------------|--------|---------|--------|--------|--------|
| Mean | 12.9 | 1.6 | 3.1 | 3.8 | 4.0 |
| Median | 13.1 | 1.7 | 3.2 | 3.8 | 1.0 |
| Maximum | 14.4 | 2.6 | 3.6 | 4.6 | 34.6 |
| Minimum | 10.3 | 0.2 | 2.2 | 3.3 | -3.2 |
| Std. dev. | 1.0 | 0.6 | 0.3 | 0.3 | 8.3 |
| Jarque–Bera | 13.6 | 2.5 | 8.6 | 0.8 | 97.5 |
| Probability | (0.00) | (0.029) | (0.01) | (0.67) | (0.00) |

The augmented Dickey–Fuller (ADF) test was applied in this study to determine the time series properties of the data. Furthermore, the autoregressive distributed lag (ARDL) model developed by Pesaran et al. (2001) was used to trace the presence of long-term relationships among the variables in the model. This application is based on the unrestricted error correction model (UECM). The ordinary least squares (OLS) technique was used to estimate the model. We can thus rewrite Eq. (i) as follows:

$$\Delta Y_t = \lambda_0 + \sum_{i=1}^{n-1} \lambda_{1i} \Delta Y_{t-i} + \sum_{i=0}^{n-1} \lambda_{2i} \Delta WR_{t-i} + \sum_{i=0}^{n-1} \lambda_{3i} \Delta GE_{t-i} + \sum_{i=0}^{n-1} \lambda_{4i} \Delta EXP_{t-i} + \sum_{i=0}^{n-1} \lambda_{5i} \Delta INF_{t-i} + \delta_1 Y_{t-1} + \delta_2 WR_{t-1} + \delta_3 GE_{t-1} + \delta_4 EXP_{t-1} + \delta_5 INF_{t-1} + u_t \dots \quad (ii)$$

The null hypothesis of no co-integration between the variables in the model can be expressed as $H_0: \delta_1 = \delta_2 = \delta_3 = \delta_4 = \delta_5 = 0$, and the alternative hypothesis, which posits that there is a long-term relationship, can be expressed as $H_1: \delta_1 \neq \delta_2 \neq \delta_3 \neq \delta_4 \neq \delta_5 \neq 0$.

If the value of the F-statistic is greater than the upper-bound critical value proposed by Pesaran et al. (2001), then we can reject the null hypothesis of no co-integration among the variables in the model. If the F-statistic is lower than the lower-bound critical value in the model. If the value of the F-test statistics lies within the critical bound values, then the outcome is inconclusive.

4.1. Data and methodology

The GDP data that were used in this analysis are presented in millions of Saudi Riyal, and the data on outflows of workers' remittances, government expenditures and exports are expressed in terms of percentage of GDP. The growth rate of the consumer product index (CPI) is employed as a measure of inflation. The data were obtained from the Saudi Arabia Monetary Authority (SAMA) Annual Report (2011) and World Bank, World Development Indicators (2011a). Summary statistics of the variables are given in Table 2.

In this analysis, the ARDL technique for analyzing co-integration was applied to trace the long-term relationship between the variables in the model.

Table 3
Unit root test for stationarity.

| Variables | ADF test | | Significance level | | |
|-----------|----------|------------------|--------------------|--------|--------|
| | Level | First difference | 1% | 5% | 10% |
| Y | -2.878 | -5.297* | -3.606 | -2.937 | -2.607 |
| WR | -1.164 | -4.847* | -3.606 | -2.937 | -2.607 |
| GE | -1.859 | -7.325* | -3.606 | -2.937 | -2.607 |
| EXP | -1.762 | -4.469* | -3.606 | -2.937 | -2.607 |
| INF | -2.117 | -4.469* | -3.606 | -2.937 | -2.607 |

Note: * indicates significance at the 1%, 5% and 10% levels.

Table 4
Bounds test results for co-integration relationship.

| Calculated F-value: 14.226 | | |
|----------------------------|-----------------|--------------|
| Significance level | Critical bounds | |
| | Lower bounds | Upper bounds |
| 1% | 3.93 | 5.23 |
| 5% | 3.12 | 5.25 |
| 10% | 2.75 | 3.79 |

Note: The bounds test values are based on Pesaran et al. (2001), Table CI (iii) Case III: b Unrestricted intercept, and no trend denotes significance at the 1%, 5% and 10% levels.

4.2. Empirical results

The ADF technique was applied to test the time series properties of the data, and the results are presented in Table 3. The results show that all of the variables are non-stationary with respect to the level and stationarity at the first difference.

The results of the bounds test with two lags, based on the Schwartz criterion, are presented in Table 4. The bounds test for co-integration serves as evidence of the presence of a long-term relationship between the variables. The computed F-test statistic is greater than the upper bound of the critical value given by Pesaran et al. (2001) at the given level of significance. This result implies that we can reject the null hypothesis of no co-integration among the variables in the model. The results, which satisfy the diagnostics tests of the long-term model, are reported in the bottom panel in Table 5.

It is expected that macroeconomic data for Saudi Arabia may be subject to one or more structural breaks, especially the outflow of workers' remittances resulting from the financial crisis of 2007. Therefore, the stability of the estimated short- and long-term coefficients was checked through the cumulative sum (CUSUM) and cumulative sum of square (CUSUMSQ) tests suggested by Brown et al. (1975). The Chow stability test requires prior knowledge of structural breaks in the estimation period, whereas the CUSUM and CUSUMSQ tests do not require prior knowledge of when structural breaks occur (Ozturk and Acaravci, 2012). Figs. 3 and 4 present plots of the CUSUM and CUSUMSQ test statistics, which fall inside of the critical bounds of the 5% significance level. This finding indicates that the estimated coefficients are stable over the estimation period.

Table 5 presents the estimate of the long-term relationships among economic growth and the outflow of workers' remittances, in addition to the size of government expenditures, exports and inflation in Saudi Arabia. The estimated outcomes show that the coefficients for GE, EXP and INF are positive and significant. The coefficient of outflow of workers' remittances is negative and has a statistically insignificant effect on GDP. This unexpected insignificance in the long term could have arisen because most non-Saudi workers remit their money immediately to their home countries, as we can observe in the significant effect of workers'

Table 5
Estimated long-term coefficients for the selected ARDL model. Dependent variable: GDP (Y) per capita.

| Variable | Coefficient | t-Statistic |
|---|-------------|---------------|
| Constant | -18.0273 | -2.380 |
| WR | -0.614 | -1.245 |
| GE | 5.479 | 3.393 |
| EXP | 4.056 | 3.234 |
| INF | 0.209 | 3.234 |
| <i>Diagnostic test</i> | | |
| Adjusted R square | | 0.930 |
| Jarque–Bera normality test | | 1.238 (0.538) |
| Breusch–Godfrey serial correlation test | | 0.130 (0.941) |
| ARCH test | | 0.589 (0.627) |
| Ramsay reset test | | 3.689 (0.030) |

Note: the values in the brackets represent p-values.

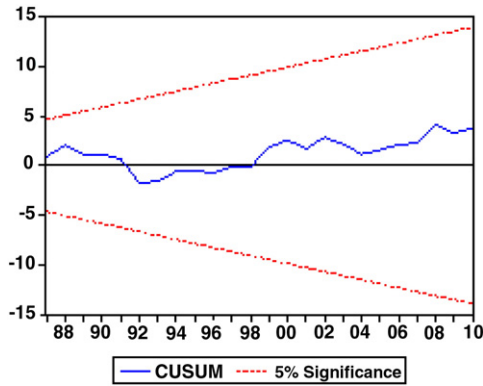


Fig. 3. Plots of stability tests of recursive estimates (OLS) using the CUSUM test and the CUSUM of squares test.

remittances on GDP in the short-term results. The coefficient for the size of government expenditures is positive and highly significant, implying that an increase in government expenditures stimulates economic growth in the country. It may be stated that the government is pursuing expansionary policies to build socio-economic overhead in the country. Such efforts have resulted in an increase in the economic growth of the country and in the outflow of workers' remittances because of the majority participation of foreign laborers in the Saudi Arabian workforce. Similarly, the coefficient for exports is found to be positive and significant, which reflects the expansion of the economic activities in Saudi Arabia that depend on export revenues. These export revenues are primarily derived from oil and petrochemical products and some re-exporting of imports. The results also show that the coefficient of inflation is positive and significant, reflecting the expansionary fiscal and monetary policies of the government to explore developmental priorities and to boost the private and industrial sectors of the economy, which increases price levels in the economy.

The result shown above is consistent with economic trends in Saudi Arabia, where the government plays an important role in the economy.

The results of the error correction model (ECM) for the selected ARDL model are presented in Table 6. As expected, this table shows that the coefficients for the outflow of workers' remittances are negative and significant in the short term. This finding indicates that the outflow of workers' remittances has a negative effect on economic growth in the country in the short term. These results imply that an increase in the outflow of capital in the form of workers' remittances will significantly decrease the economic growth rate in the country in the short term. It could be stated that this tendency causes economic growth to decline as a result of a lack of effective demand from foreign workers' earnings and capital flight from foreign workers' income. Government expenditures with lags of one and two periods exhibit a negative influence on economic

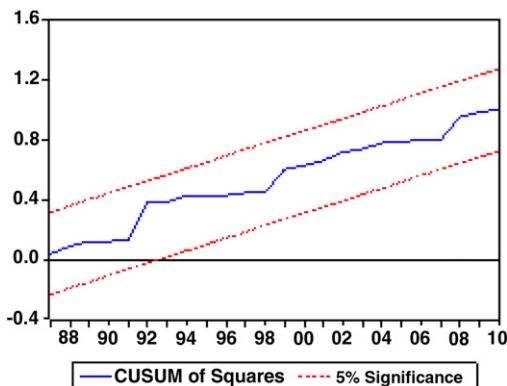


Fig. 4. Plots of stability tests of recursive estimates (OLS) using the CUSUM test and the CUSUM of squares test.

Table 6

The results of ECMs for the selected ARDL. Dependent variable: GDP (Y) per capita.

| Variable | Coefficient | t-Statistic |
|---|-------------|---------------|
| $\Delta Y (-1)$ | -0.342 | -3.139 |
| ΔWR | -0.704 | -10.983 |
| $\Delta GE (-1)$ | -0.643 | -3.978 |
| $\Delta GE (-2)$ | -0.157 | -1.814 |
| ΔEXP | 0.228 | 3.031 |
| $\Delta EXP (-1)$ | 0.273 | 3.433 |
| $\Delta INF (-1)$ | -0.010 | -3.436 |
| $\Delta INF (-2)$ | -0.009 | -3.418 |
| ECM (-1) | -0.099 | -9.110 |
| <i>Diagnostic test</i> | | |
| Adjusted R square | | 0.907 |
| Jarque-Bera normality test | | 1.238 (0.538) |
| Breusch-Godfrey serial correlation test | | 0.935 (0.890) |
| ARCH test | | 0.627 (0.596) |
| Ramsay reset test | | 6.328 (0.003) |

Note: the values in brackets represent p-values.

growth in Saudi Arabia in the short term. The results further show that exports have a positive and significant effect on economic growth in Saudi Arabia in the short term. However, the coefficients for inflation with lags of one and two periods indicate a negative and statistically significant effect of inflation on economic growth in the short term.

The results show that the growth rate of the Saudi economy is driven by the amount of government expenditures and export revenue in both the short and long term. The increasing pace of economic activities generates more employment opportunities, which in turn stimulate economic growth. Thus, increasing the amount of government expenditures causes more economic growth in the economy in the long term. This growth enhances general purchasing power, which results in higher prices for goods and services in the economy. Thus, rising inflation discourages consumption and investment activities and induces more outflows of capital, given the absence of an appropriate investment atmosphere in the economy.

5. Conclusions and suggestions

In this study, we examined the short- and long-term relationships between economic growth and the outflow of workers' remittances in Saudi Arabia during the 1970–2010 periods. The ARDL technique was applied to assess co-integration, and an increase in the outflow of workers' remittances was found to have a negative short-term effect on economic growth in Saudi Arabia. This effect may occur because most of the earnings of foreign workers are remitted immediately to their home countries and are not being spent on consumption and investment activities in Saudi Arabia. The results show that government expenditures and exports are positive and highly significant in increasing the economic growth rate of the country in the long term. Increased exports and the growing pace of economic activities generate more employment opportunities, which in turn stimulate economic growth. Thus, economic growth in the country is being driven by the government's expansionary fiscal policies that are used to build the infrastructure of the economy. These policies enhance economic growth and lead to an increase in the outflow of workers' remittances because of the majority participation of foreign laborers in Saudi Arabia's workforce. Export revenues and the fiscal policies of the government enhance general purchasing power in the economy. This outcome increases inflation, discourages consumption and investment activities and induces a higher outflow of capital, which ultimately reduces the economic growth of the country.

The findings of this study indicate that there is a need to mobilize these outflows of capital in domestic consumption, saving and investment activities in the country by offering more incentives relative to those in the laborers' home countries. There is also a need to pursue a policy that ensures favorable labor laws to create a sense of confidence

in the migrant workforce. Finally, the higher education system and government training organizations in Saudi Arabia must develop strategies to provide the economy with local skilled laborers to reduce dependence on foreign workers and thus decrease workers' remittances.

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